



Aviation Investigation Final Report

Location:	ORR, Minnesota	Accident Number:	CHI90LA183
Date & Time:	July 19, 1990, 13:00 Local	Registration:	N2134Z
Aircraft:	CESSNA 180	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

THE FLOAT EQUIPPED ACCIDENT AIRPLANE NOSED OVER DURING A FORCED LANDING ATTEMPT TO A CREEK, AFTER AN ENGINE FAILURE. THE PILOT STATED IN AN INTERVIEW THAT ON THE DAY BEFORE THE ACCIDENT HE HAD DEPARTED A SEAPLANE BASE WITH FULL FUEL TANKS FOR A FLIGHT TO ANOTHER LAKE. THE FOLLOWING DAY HE RETURNED TO HIS DEPARTURE POINT USING AN UNFAMILIAR ROUTE AND BECAME DISORIENTATED. THE PILOT ALSO STATED THAT HE SUSPECTED EITHER A LOOSE GAS CAP OR A FUEL LEAK AS A CAUSE OF HIS FUEL EXHAUSTION.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S FAILURE TO PERFORM FUEL CONSUMPTION CALCULATIONS WHICH RESULTED IN FUEL EXHAUSTION AND SUBSEQUENT LOSS OF ENGINE POWER. FACTOR WAS ROUGH/UNEVEN TERRAIN.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: CRUISE - NORMAL

Findings

1. (C) FLUID,FUEL - EXHAUSTION
2. (F) FUEL CONSUMPTION CALCULATIONS - NOT PERFORMED - PILOT IN COMMAND

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Findings
3. (F) TERRAIN CONDITION - NONE SUITABLE

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - EMERGENCY

Findings
4. TERRAIN CONDITION - ROUGH/UNEVEN

Factual Information

Pilot Information

Certificate:	Private	Age:	62, Male
Airplane Rating(s):	Single-engine land; Single-engine sea	Seat Occupied:	Unknown
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	May 17, 1989
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	930 hours (Total, all aircraft), 700 hours (Total, this make and model), 5 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N2134Z
Model/Series:	180 180	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:		Serial Number:	51234
Landing Gear Type:	Float	Seats:	3
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	2600 lbs
Time Since Last Inspection:	0 Hrs	Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	CONTINENTAL
ELT:	Installed, activated	Engine Model/Series:	O-470K
Registered Owner:		Rated Power:	230 Horsepower
Operator:	CLEON O. GARLEY	Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Scattered / 4500 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	-18°C / -18°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	ATIKOKAN (NONE)	Type of Flight Plan Filed:	None
Destination:	CRANE LAKE , MN (8Y8)	Type of Clearance:	None
Departure Time:	00:00 Local	Type of Airspace:	

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:	0 ft msl	Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:	0 ft / 0 ft	VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	48.110744,-93.129486(est)

Administrative Information

Investigator In Charge (IIC): Bruce, William

Additional Participating Persons:

Original Publish Date: November 9, 1992

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=14713>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).